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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------------|-----------------------------|
| 10/567,341 | 02/06/2006 | Yuichi Matsuo | 108421-00126 | 5331 |
| 4372 | 7590 | 12/11/2008 | | |
| ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036 | | | EXAMINER BARCENA, CARLOS | |
| | | | ART UNIT 4181 | PAPER NUMBER |
| | | | NOTIFICATION DATE 12/11/2008 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/567,341 | Applicant(s) MATSUO ET AL. | |
| | Examiner Carlos Barcena | Art Unit 4181 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-8 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11 June 2008; 10 August 2007; 25 April 2007; 07 August 2006; 06 February 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 6-8, in the reply filed on 11/21/2008 is acknowledged. Since applicant's election is made without traverse, the restriction requirement is deemed to be proper and made FINAL.

Information Disclosure Statement

2. The information disclosure statement filed 02/06/2006, 04/25/2007, 08/10/2007, and 06/11/2008 fail to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because no English translation provided. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

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Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6-8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of **U.S. Patent No 7,199,079**. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

The differences between the instant claims and the patented claims of US 7,199,079 is that the instant claims are drawn to a method of producing a catalyst comprising Pd and PdO supported on LnAlO_3 generated as a single phase and trigonal or rhombohedral. Whereas, in US 7,199,079, the claims are drawn to a method of producing a catalyst comprising Pd supported on aluminum oxide having the formula $\text{LnAl}_{1-x}\text{M}_x\text{O}_3$.

Both the instant application and in US 7,199,079 recite the same process steps of how to prepare the purification catalyst. Since the process steps are the same, it is only reasonable to conclude that it is inherent that the catalyst produced by the process of the US 7,199,079 would have the same catalytic structure and formula as being required by the instant claims. As an example, choosing aluminum from group 13 would have the recited formula $\text{LnAl}_{1-x}\text{M}_x\text{O}_3$ resulting a phase as recited in the instant claims. Thus, there is no patentable distinction between the claimed method and that disclosed by US 7,199,079.

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Claims 6-8 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of **U.S. Patent No. 7,259,127**. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

The difference between the instant claims and US 7,259,127 is that the instant are drawn to a method of producing a catalyst comprising Pd and PdO supported on LnAlO_3 generated as a single phase and trigonal or rhombohedral. Whereas, in US 7,259,127, the claims are drawn to a method producing a catalyst comprising Pd-based composite oxide containing at least one element selected from the rare earth metals group.

It would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to have substituted the rare earth metals of the US 7,259,127 with the aluminum composite oxide having the perovskite structure in order to achieve a promoted structure catalyst because aluminum oxide is well known as useful catalyst support. Furthermore, both the instant application and in US 7,259,127 recite the same process steps of how to prepare the purification catalyst. Since the process steps are the same, it is only reasonable to conclude that it is inherent that the catalyst produced by the process of the US 7,259,127 would have the same catalytic structure and formula as being required by the instant claims. Thus, there is no patentable distinction between the claimed method and that disclosed by US 7,259,127.

Claims 6-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6-8 of **copending Application No. 10/568505**. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

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The difference between the instant claims and the claims of the copending 10/568505, is that the instant claims the instant claims are drawn to a method of producing a catalyst comprising Pd and PdO supported on LnAlO_3 generated as a single phase and trigonal or rhombohedral. Whereas, in copending 10/568505, the claims are drawn to a method producing a catalyst comprising Pd oxide containing Ln_2PdO_4 supported on LnAlO_3 .

Both the instant application and copending 10/568505 recite the same process steps of how to prepare the purification catalyst. Since the process steps are the same, it is only reasonable to conclude that it is inherent that the catalyst produced by the process of the copending 10/568505 would have the same catalytic structure and formula as being required by the instant claims. Thus, there is no patentable distinction between the claimed method and that disclosed by copending 10/568505.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowable subject matter: claims 6-8 are novel over the prior art. The closest prior art (Subramanian et al., Catalyst Letters 16 (1992) 323-334) discloses compositions of Pd-La/ α - Al_2O_3 catalysts made from rare-earth nitrate solutions. Palladium is supported on aluminum oxide where aluminum oxide is LaAlO_3 and lanthanum is a rare-earth metal. Catalysts were heated to less than 1000 °C. However, the closest prior art fails to include preparing at least one kind of compound selected from a group of compounds of carboxylic acid having a hydroxyl group or a mercapto group and having a carbon

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number of 2 to 20, dicarboxylic acid having a carbon number of 2 or 3, and monocarboxylic acid having a carbon number of 1 to 20, thus the claims are patentably distinct over the said reference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Barcena whose telephone number is (571) 270-5780. The examiner can normally be reached on Monday through Thursday 8AM - 5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. B./

Examiner, Art Unit 4181

/Vickie Kim/

Supervisory Patent Examiner, Art Unit 4181